Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board on	)	CC Docket No. 96-45
Universal Service	)	

Comments of the Michigan Library Association

April 12, 1996

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OVERVIEW COMMENTS

On March 8, 1996 the Federal Communications Commission (FCC) issued a Notice of Proposed Rulemaking and Order Establishing Joint Board (Notice) to implement the Congressional directives set out in Section 254 of the Communications Act of 1934, as amended by the Telecommunications Act of 1996. The FCC initiated this rulemaking to do the following: (1) define the services that will be supported by Federal universal service support mechanisms; (2) define those support mechanisms; and (3) otherwise recommend changes to the FCC's regulations to implement the universal service directives of the 1996 Act. This is an overview of the comments of the Michigan Library Association, a member organization of 2000 individual and institutional members from public, school, academic, and special libraries.

> As the country engages in discussion of how to develop a national information infrastructure and a "national information superhighway," it is hard to imagine a more accessible and available "on-ramp" to that highway than the local library. Libraries exist in communities, in schools, on college campuses and in businesses large and small. The library's tradition of promoting access to information resources and assisting citizens in navigating through the complexities of information presentation is long-standing and adapts well to the new environment.
>
> Action Plan For Michigan Libraries, 1994
> Developed by the Michigan Library Association

The Michigan Library Association (MLA) believes that libraries should receive particular attention for universal service provisions since it is likely that not all of the capabilities will be available in the home. In the following detailed text we have delineated the essential services and capabilities that we believe should be made available generally in meeting the requirements of this new law. These essential services should be available to the population generally and to schools, libraries, and health services providers in order to ensure fundamental educational and quality of life needs for this country.

However, recently Clifford Lynch, who is a technology advisor in the Office of the President, University of California, commented to a group gathered to consider library issues for the future that "Universal Service must mean more than just getting wires into homes. It must ensure access to content." Capabilities that will be required to do that must reflect directly the nature of the emerging information resources and the emerging information environment. Capabilities beyond those listed as essential services must also be defined as part of universal service, at least for schools, libraries and health service providers.

These capabilities and the related technical specifications required to support them are included in our MLA Action Plan. The Technology Path (Attached as Appendix I) shows the progression needed for libraries to reach the stage of being the full-fledged community information systems essential for the educational needs of any community by the year 2000. The characteristics of a community information system are as follows.

- Local text files on local issues created and made available locally and on the Internet.
- Email available locally for reference service to community Internet access to enhance reference support
- Local library materials scanned to create networked files including illustrations, graphics, etc.
- Full-fledged community information system implemented which allows for access to text files, images, and compound documents via World Wide Web clients such as Mosaic or Netscape. The nature of the new information resources necessitates capability for sound, full motion video, presentation of images, text manipulation

The technical requirements to meet the needs for this community information system are:

- LAN, ethernet, token ring Integrated services digital network (ISDN) services (64-128 kbps)
- T1 line as basic service (1.44 Mbps leased service)
- Libraries will need more than 1.5 mbps including very high speed broadband services and video support like Asynchronous Transfer Mode (ATM) over the next 5 years

The fully detailed list of the capabilities that will be required to enable this essential educational function is included in the more detailed comments which follow. It is worthwhile to note that there is direct evidence of the public's need for this capability in its libraries as is shown in the following examples.

Actual questions asked through MLink, a program tying the University of Michigan Library to all the public libraries in the state

- A local lawyer needs information on blood analysis. He needs information with illustrations/images on blood splatter evidence. He has a case where blood splatter is being used as evidence to convict his client of something and he knows it is unrelated. He needs the information at once.
- Have other cities made plans for the installation of fiber optic cable in their communities? We need copies of the plans and full text versions of RFPs that were sent to companies. Contacts in cities where this has occurred are also needed.
- How can we involve the elementary school children in WWII 50 year commemoration activities? Are there video clips, sound tracks, and images? Can they be transmitted to our school?
- Our class needs an image copy of the Declaration of Independence of Uruguay for a world history presentation
- Our PTA is planning a new playground for the school. They would like to see plans and illustrations for the latest and safest equipment and designs.

Just to receive the answers, capabilities described will be required. Ensuring the availability of this level of technological capability in schools, libraries, and with health service providers will, in fact, constitute the underpinnings of universal service freely available throughout the population across the entire country. This insurance against information "haves" and "have nots" will significantly meet the expectations and requirements of the new law.

Introduction:
The FCC has requested comments to be filed by April 8, 1996. The following are the comments of the Michigan Library Association. Due to the limited time allowed to respond to the notice references will be made to other sources of standards, criteria and background. Copies of referenced materials will be made available upon request.

Background:
The 1996 Act requires the FCC to "institute and refer to a Federal-State Joint Board under section 410(c) a proceeding to recommend changes to any of its regulations in order to implement sections 214(e), including the definition of the services that are supported by Federal universal service support mechanisms and a specific timetable for completion of such recommendations "

The Joint Board and the FCC are to base the policies on the following principles:

(1) QUALITY AND RATES.--Quality services should be available at just, reasonable, and affordable rates. (Act @ 254(b)(1) & 254 (I))

(2) ACCESS TO ADVANCED SERVICES.--Access to advanced telecommunications and information services should be provided in all regions of the Nation. (Act @ 254(b)(2) & 254(c)(3))

(3) ACCESS IN RURAL AND HIGH COST AREAS.--Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including interexchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas. (Act @ 254 (b)(3))

(4) EQUITABLE AND NONDISCRIMINATORY CONTRIBUTIONS.--
All providers of telecommunications services should make an equitable an nondiscriminatory contribution to the preservation and advancement of universal service. (Act @ 254(b)(4) & 254(d))

(5) SPECIFIC AND PREDICTABLE SUPPORT MECHANISMS.--
There should be specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service. (Act @ 254(b)(5))

(6) ACCESS TO ADVANCED TELECOMMUNICATIONS SERVICES FOR SCHOOLS, HEALTH CARE, AND LIBRARIES.--
Elementary and secondary schools and classrooms, health care providers, and libraries should have access to advanced telecommunications services as described in subsection (h). (Act @ 254(c)(3) & 254(h)(2)(B))

(7) ADDITIONAL PRINCIPLES.--Such other principles as the Joint Board and the FCC determine are necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with this Act. (Act @ 254(c)(3))

Summary of Comments - Library Impact:
Changes to the existing federal support mechanisms should be consistent with the new Telecommunications Act of 1996. The new Act requires additional funding for schools, hospitals and libraries, and new national service principles. This is an unprecedented opportunity to ensure the provision of advanced telecommunications services to the citizens of Michigan via their schools and libraries.

Michigan's libraries have struggled over the last ten 15 years to provide library users access to an increasing array of electronic services and technologies -- often within the constructs of expensive and/or unavailable telecommunications services. 344 of Michigan's 382 public libraries have a telefacsimile machine, 216 report library automation systems and only 158 libraries report access to the Internet. Of this 158 only 60 report connectivity of direct 56KB or better, the rest rely on dial access via Michigan's shared dial-in network operated by Merit

Since 1992 the Library of Michigan has focused its federally funded Library Services and Construction Act competitive grant program on building the technology infrastructure within our libraries. $9.8 million has been directed to automating our public libraries and to introducing new technologies such as CD-ROM networking. In the last two years we have provided grants in excess of $3.8 million in direct support of projects connecting libraries to the Internet. While these federal dollars have made important contributions, we will not be able to meet all library connectivity needs through this modest program. The significance of these early connectivity projects is important to understand however, it is through the success of these early projects that we can demonstrate the tremendous value library connectivity has for local communities.

In 1995, as part of a comprehensive program in support of library technology, the Library of Michigan introduced the Internet Training Center program. Seven of our fifteen public library cooperatives were awarded grants and have established a total of nine centers thus far. These centers are located throughout the state from suburban Detroit to Iron Mountain in the Upper Peninsula. All of the centers have achieved significant success in training library staff, trustees, the public and the education community and serve as important community resources.

As a result of an original $100,000 grant to the MidPeninsula Library Cooperative in Iron Mountain, the Cooperative was able to attract an additional grant from the Rural Datafication program through Merit. This synergistic combination of support, coupled with additional assistance from the local community has brought a MichNet dial access node, an Internet Training Center and a community networking initiative called Walden III to the Iron Mountain, Michigan area. Soon to be deployed will be a test of the delivery of electronic information via a kiosk offering direct public access beyond the walls of the sponsoring library. Libraries are clearly involved in innovative uses of telecommunications technology that have significant impact on local communities. The reliance on grant programs, however, will not deploy these technologies quickly enough nor will it assure their continued use in libraries without the benefits associated with inclusion in universal service mechanisms.

This Notice lacks specific detailed rules with cost and price impact by state. MLA would recommend that a further Notice be issued to adopt specific detailed rules together with information by state on what the specific rules impact would be

Goals and Principles of Universal Service Support Mechanisms:
The FCC is inviting comment on how each of the seven principles set out here should influence the policies on universal service.

The FCC seeks comment on how the FCC can assess whether quality services are being made available. In particular, the FCC is seeking comment on the utility of performance-based measurements to evaluate the success in reaching this Congressional objective. The FCC seeks comment on whether there are appropriate measures that could help assess whether -affordable" service is being provided to all Americans.

Comments:
MLA recommends the use of the National Regulatory Research Institute (NRRI) model that was presented at the NARUC Summer 1995 meeting for a service quality framework. This framework includes the parameters of the following communications functions:

-technical sales planning
-provisioning
-technical quality-connection establishment
-user information transfer
-connection release
-billing
-repair
-technical support
-technology in use
-operator services
-complaint handling

These parameters should all be evaluated on the basis of speed, accuracy, availability, reliability, security, simplicity, and flexibility. This list of service criteria can then be used to develop a performance index. Providers would then receive more or less support based on the performance index weighting on a nationwide basis.

As to the second principle, the FCC seeks comment on how to design policies to foster access to advanced telecommunications and information services for "all regions of the Nation". The FCC also seeks comment on which advanced telecommunications and information services should be provided, and how to provide access effectively to Americans in various geographic regions. The FCC also seeks comment on the cost of providing such access.

Comments:
MLA does not provide comments on the definition of all essential telecommunications services. MLA recommends that any list of "advanced telecommunications services" be included in a definition of essential services and that such a list include:

-stand alone service defined to include:
-line quality capable of facsimile transmission;
-line quality capable of data transmission;
-connectivity with all public toll, local, wireline and wireless networks;
-telecommunications relay service for voice-to-text and text-to-voice translation;
-frame relay services;
-ATM, directory listings;
-access to interexchange services;
-voice mail;
-local (or 800 number supported) long distance
-internet access
-high speed transmission and broadband telecommunications services [e.g., ISDN PRI (23B&1D channels) operating over a T1 line at a minimum with data rate transmission capability of at least 128kbps]

In Michigan, the Michigan Information Network (MIN) Planning Committee issued the MIN Technical Committee Report in May 1995. The MIN will link each local and intermediate school district, community college, independent nonprofit college or university located in the state of Michigan, and state public university and each state, local or regional library on an equal basis by fiber optic, or coaxial cable, or other comparable system allowing a world-class statewide interactive video and data access and exchange system. The mission of the MIN is to ensure that Michigan has a network which integrates data, video, and voice. Such a network will allow users to connect as easily, efficiently, and cost effectively as possible to local, state, national and international networks.

As requirements for the MIN, the systems must integrate two way interactive capability including:

-Digital video allowing full motion video
-High speed burst data
-High quality voice
-High quality/high resolution video
-High speed multimedia resource data

The gateway switching options are:

-building three separate switch fabrics - one for data, voice and video;
-an integrated network like broadband integrated services/ asynchronous transmission mode (ATM); or
-some other narrower bandwidth integrated network different than ATM.

The report goes on to state that while there are a lot of standards in the market, the gateway switching network needs to be compatible with existing facilities and allow current voice dial network calls to be handled. The network needs to adopt the North American Dialing Standards. The gateway switching network also needs to allow Internet compatibility so the TCP/IP standards need to be transparent and handled by the network.

The MIN Report also discusses the need for a video standard. There is no clear standard that is universal. Numerous video standards need to be accommodated that already exist (compressed T-1, JPEG/MPEG and full motion video for traditional television).

Michigan also has a report titled Action Plan For Michigan Libraries dated November 21, 1994 and developed by the Michigan Library Association. Key elements of the plan include infrastructure developments, public policy issues, cooperation/collaboration, competencies and funding. As noted earlier, the technical requirements identified in the Report include:

- LAN, ethernet, token ring Integrated services digital network (ISDN) services (64-128 kbps)
- T1 line as basic services (1.44 Mbps leased service)
- Libraries will need more than 1.5 mbps including very high speed broadband services and video support like Asynchronous Transfer Mode (ATM) over the next 5 years

Publication of this demonstrates the readiness of the Michigan library community to take advantage of the potentials offered by an expanded definition of universal service.

The following requirements from the "Monterey Futures Group: White Paper on Telecommunications Requirements for the Virtual University - 1/1/96" should be incorporated into any recommendation:

-General Requirements
- Security, authorization and authentication
- Network management capabilities including performance audit

-Wide-area Communications
- Scaleable to serve all institutions of higher education
- Supports integrated, real-time voice, video, and data
- OC-12 to OC-48 connections into the national backbone for the R1's and R2's
- Supports individual streams at OC-3
- End-to-end quality of service
- Supports multicasting
- Connections to other backbones, both national and international

-Campus Communications
- OC-12 bandwidths at the campus core
- OC-3 connecting the core to distributed locations
- End-to-end quality of service
- Supports hundreds to thousands of 1.5 MB/s streams
- Multicast capabilities
- Symmetric connectivity

-Community Infrastructure
- 1.5 MB/s to 10 MB/s into the home
- Goal of connectivity in the home being the same as on campus
- Support 10Base T connectivity
- Support multiple devices for each IP number
- Future target of quality of service

-Workstations
- 10 MB/s to OC-3 performance to the desktop
- Support end-to-end quality of service

-Software
- Streaming protocol
- Point-to-multipoint protocol

The third principle stresses that consumers in "rural, insular, and high-cost areas" and "low income consumers" should have access to "telecommunications and information services" that are "reasonably comparable to those services provided in urban areas." The FCC believes that its goal should be to ensure that consumers "in all regions of the Nation" and at all income levels, including low-income consumers, enjoy affordable access to the range of services to urban consumers generally. The FCC seeks comment on how best to incorporate that variation in its use of urban area service as a benchmark for comparative purposes.

Comments:
MLA recommends that with the adoption of the list of "essential services" mentioned earlier, all local exchange service providers be required to make available to all customers at affordable prices all essential telecommunications services. By monitoring service quality and rewarding service improvements, the technology and services will be deployed. MLA would also make reference to the MIN Report that was summarized earlier on in these comments.

The final principle listed in Section 254 of the new legislation authorizes the FCC and the Federal-State Joint Board to base universal service policies on such other principles as they deem necessary and appropriate for the protection of the public interest, convenience, and necessity and are consistent with the Act. The FCC invites comment on proposed additional principles relevant to the choice of services that should receive universal service support. The FCC seeks comment on whether they should ensure that the means of distributing universal service support should be competitively-neutral, and the least regulatory possible, consistent with the FCC's statutory obligations. The FCC specifically asks that commenters address whether and to what extent concerns for low income consumers or those in rural, insular, or high cost areas can or should be articulated as additional universal service principles pursuant to Section 254(b)(7) or should be considered in determining whether a particular service is -consistent with the public interest, convenience, and necessity under Section 254(c)(1)(D).

Comments:
MLA recommends that the funds should be distributed on a competitively neutral basis based on easy to complete electronic uniform accounting information. All companies should be required to provide the same data in a public manner. The data should be electronically submitted, stored and made publicly available on the FCC web site.

Section 254(c)(1) of the Act directs that:

> the definition of the services that are supported by Federal universal service support mechanisms shall consider the extent to which such telecommunications services--
>
> (A) are essential to education, public health, or public safety;
> (B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
> (C) are being deployed in public telecommunications networks by telecommunications carriers; and
> (D) are consistent with the public interest, convenience, and necessity.

The FCC seeks comment on their interpretation that the Joint Board and the FCC may include services that do not necessarily meet all four criteria. The FCC also seeks comment on how they should evaluate whether a service or feature is "essential to education, public health, or public safety."

Comments:
MLA recommends that an ongoing, federally funded, consumer advisory board be set up and be comprised of key members of the library, education, health care and public safety communities to determine the necessary services that are required.

The fourth principle dictates that the FCC must collect the revenues required to fund the universal support mechanisms in an equitable and non-discriminatory manner. The FCC seeks detailed comments on the implications of this directive with respect to the mechanisms that will be employed to collect universal service contributions later on in the notice. The FCC seeks comment on what standards we might use to help determine which, if any, "providers of telecommunications services" might be treated differently than others for "equitable" reasons

Comments:
MLA recommends that universal service funds should be collected equally from all telecommunications service providers as defined by the Act based on gross revenues. No exceptions should be made. The charges should be computed as a flat rate and billed on a monthly basis and the results by company published in electronic format by the FCC.

The FCC invites commenters to identify additional services that meet the statutory criteria of Section 254(c)(1) and therefore should be among the services that should receive universal service support. Commenters should discuss the extent to which each of the proposed services specifically meet those statutory criteria and further the principles established in Section 254(b). In addition, given that the 1996 Act specifies that common carriers "shall . . . offer the services that are supported by Federal universal service support mechanisms" in order to be designated as eligible telecommunications carriers and thus eligible for universal service support, and that the Joint Statement stresses the importance of "opening all telecommunications markets to competition," the FCC seeks comment regarding the competitive effect of our proposed definition. Specifically, they ask whether providing universal service support for each proposed service could serve as a barrier to entry by new competitors or favor one technology over another, perhaps more efficient, technology

Comments:
MLA recommends adoption of our proposed list of advanced telecommunication services that should be included in any definition of essential telecommunications services. Providing support for specific services is technology neutral along with providing support for government, health care, schools and libraries. If the government, schools and libraries are not in the local calling area, then there should be calling plans that allow free or low cost flat rate access to these services.

The FCC seeks comment on how they should determine rate levels that would be "affordable" and "reasonably comparable" for services identified as requiring universal service support. The FCC asks commenters to identify the criteria or principles that should guide this determination, the methods they should use to evaluate the required rate levels, and whether there should be procedures to recalibrate these rate levels to reflect changes in inflation or other factors that may make such recalibration periodically necessary.

Comments:
MLA recommends that the rates should be compared on the basis of scope, availability and quality of services provided. MLA further comments cite the long-standing difficulties schools and libraries have had in obtaining affordable, reliable and consistent telecommunications services. In a state like Michigan rates for connectivity, such as to the Internet for example, vary widely based upon service provider and geography. One service provider reports typical first year cost range differences based solely on geography as follows:

56K site (Typical)		high	low
	total	$5,463	$4,644
T1 Site (Typical)			
	total	$15,629	$10,949

The inability to procure advanced telecommunication services at affordable rates has been a significant stumbling block to the introduction of services based on such technologies. Libraries have been hindered in efforts to integrate such technologies by complex pricing mechanisms. Libraries have been assisted by their ability (in some cases) to aggregate demand among like organizations. MLA recommends that any implementation plans allow for the continued use of buying cooperatives that not only aggregate demand, but also provide services often unavailable from traditional telecommunications vendors (such as training and support services).

The FCC also seeks comment in this connection regarding the statutory requirement "that any support mechanisms continued or created under new section 254 should be explicit," and the FCC requests the Joint Board to address this principle in its recommendation.

Comments:
MLA recommends that the funding should be explicitly cost-based and non-discriminatory based on financial showing, with adequate detail to be auditable by state and FCC commission staffs.

The FCC also requests comment regarding a specific proxy model submitted to the FCC by several telecommunications carriers (Joint Sponsors).

Comments:
The proxy model should not be used at this time because it is unauditable, not explicit and does not correlate with actual need.

Comments:
The costs should be based on embedded or out of pocket costs. There should be no windfalls and a means to game this process should not be allowed. MLA agrees with the FCC that any acceptable model be made technology neutral so that any appropriate telecommunications services can and should be provided.

Who Is Eligible For Support:
The FCC requests comment, and a corresponding recommendation from the Joint Board, regarding the need for any measures to ensure that support is used for its intended purpose. Similarly, they ask for comment regarding the need for additional measures to ensure that "telecommunications carrier[s]" do not "use services that are not competitive to subsidize services that are subject to competition." They also invite commenters to propose means to ensure that all eligible carriers -- and no ineligible carriers -- receive the appropriate amount of universal service support.

Comments:
MLA recommends that in order to ensure that all eligible carriers receive the appropriate amount of support, actual cost data needs to be required, publicly reported and periodically audited.

Section 214(e)(1) requires an eligible carrier to offer "the services that are supported by Federal universal service support mechanisms under Section 254(c), either using its own facilities or a combination of its own facilities and resale of another carrier's services." Each eligible carrier must also "advertise the availability of such services" and the charges for those services "using media of general distribution." The FCC seeks comment regarding, and asks the Joint Board to recommend, standards for compliance with these requirements.

Comments:
Services must be published in tariffs and providers should not be allowed to withdraw service without prior approval and must advertise the availability of such services and corresponding rates and terms. This process should include system and service aggregators to be eligible for funding along with non-profit coalitions that serve as providers (i.e., MERIT, non-profit cooperatives and consortiums).

The Act also requires "eligible telecommunications carrier[s]" to "advertise the availability of such services and the charges therefor using media of general distribution." The Joint Explanatory Statement adds that "such services must be advertised generally throughout" the service area. To avoid future disputes, the FCC believes it may be useful to adopt guidelines defining the steps that would be sufficient to advertise the availability of, and charges for, services. They ask interested persons to comment on this approach and suggest appropriate guidelines

Comments:
The appropriate guidelines to be used here would be to tariff or file this information in the public domain and to assure that it is easily available on both statewide and national levels. Additionally, telecommunications services providers should be required to file their rate schedules and service descriptions with the state department of education and state library agency.

Schools, Libraries, and Health Care Providers:
The FCC seeks comment on what services, in addition to the core services discussed in Section III, should be made available to schools, libraries and rural health care providers at a discount. They also seek comment on issues relating to the implementation of Section 254(h)(1) relating to support mechanisms that would enable eligible schools, libraries, and rural health care providers to receive both the core and advanced telecommunications services included among those eligible for universal service support.

Comments:
The standards needed to support the necessary services can be found in several existing documents and in addition to these services should include the cost of ongoing training and support provided by telecommunication providers to assist users in the use of the network. See our earlier reference to the Monterey standards; the MIN Technical Report; and the Action Plan for Michigan Libraries. MLA stresses the need for services such as ongoing training and support (speed, accuracy, availability, reliability, security, simplicity, and flexibility) to be key factors in evaluating the success of a telecommunications services provider.

Section 254(h)(1)(B) of the Act states:

All telecommunications carriers serving a geographic area shall, upon bona fide request for any of its services that are within the definition of universal service under subsection (c)(3), provide such services to elementary schools, secondary schools, and libraries for educational purposes at rates less than the amounts charged for similar services to other parties. The discount shall be an amount that the Commission, with respect to interstate services, and the States, with respect to intrastate services, determine is appropriate and necessary to ensure affordable access to and use of such services by such entities.

Schools and Libraries:
The FCC proposes that the set of services designated for federal universal service support pursuant to Section 254(c)(1) and any other services designated for support pursuant to Section 254(c)(3) be made available to schools and libraries pursuant to the discount to be considered in this proceeding.

The FCC seeks comment and Joint Board recommendation on the additional services that carriers must make available to schools and libraries under Section 254(h)(1)(B). As the legislative history makes clear, Congress "expect[ed] the Commission and the Joint Board to take into account the particular needs of . . . K-12 [kindergarten to 12th grade] schools and libraries" in determining which services should be provided at a discount.

Comments:
MLA recommends adoption of our list of telecommunication services mentioned earlier in these comments. MLA also recommends support funding through rate discounts to be made available for institutions offering telecommunications services to be used to provide any of the following services:

(A) two-way interactive video services
(B) high speed data transfer
(C) toll call access to the Internet
(D) direct Internet access

In addition, the FCC seeks comment on whether wireless technologies may provide a more efficient way of delivering any of the services designated for support. Finally, they also invite comment on how their special definition of services for schools and libraries should reflect future "advances in telecommunications and information technologies and services." The FCC seeks comment and Joint Board recommendation on all of these issues.

Comments:
MLA believes that many technologies, including wireless, may provide a more efficient way of delivering any of the services designated for support. Wireless loop and commercial mobile radio service, personal communications service and satellite may provide a more efficient way of providing these services and all should qualify for support. Further, support should not be hardware dependent and should be reviewed at regular intervals.

The FCC seeks comment and Joint Board recommendation on the factors to be used in formulating a discount methodology for universal service support for schools and libraries. The methodology could reflect whether the services used are tariffed or whether the charges are for capital investments or recurring expenses. The methodology could also be based on the incremental costs of providing services rather than retail prices. They also seek comment on the estimated costs associated with each discount methodology, and how each methodology would comport with the Act's principle of providing "specific, predictable and sufficient Federal and State mechanisms to preserve and advance universal service." Overall, the FCC seeks comment and a Joint Board recommendation on how the respective State and Federal discount methodologies can be harmonized to ensure that we fulfill Congress's goal that, throughout the nation, elementary and secondary schools, classrooms and libraries have access to advanced telecommunications services.

Comments:
MLA recommends that the average cost to provide the service should be made publicly available and those rates for the service should be published. The discounted rate should need no justification other than a signed agreement between all parties attesting to the discount and quantity. The same terms, conditions and prices should also be made available to all other schools, libraries and healthcare institutions in the providers' service area so they too can take advantage of the services to advance the infrastructure. Selected discount methodologies should be distance insensitive. Additionally, MLA recommends the following be considered:

(i) applicability of the four defi ning principles of universal service;
(ii) utility of the service as determined from surveys of usage in schools, libraries, government and private industry; and
(iii) degree to which cost is the primary barrier to service acquisition by schools and libraries.

The FCC invites comment on what steps they should take to ensure that this requirement is met. One possible approach would be to have the school or library provide the carrier with a written certification that the requested services will be used for educational purposes and will not be "sold, resold, or otherwise transferred by such user in consideration for money or any other thing of value." They invite comment and Joint Board recommendation on this proposal. To ensure that schools and libraries have a meaningful opportunity to benefit from the discounts, they propose to require each carrier to inform annually each school and library within its geographic serving area of the available discounts.

Comments:
MLA recommends annual reporting of data and that this information should be filed electronically and be made available from the FCC's Internet web page. Any restrictions on use of telecommunications services on libraries and schools should not prohibit their participation in non-profit consortiums which aggregate demand and improve local service delivery.

The FCC proposes that any person qualified under State or local law to order telecommunications services for schools or libraries be deemed capable of making a "bona fide request" for service. They ask for comment and Joint Board recommendation on how to determine with as much precision as possible whether such a request is "bona fide."

Comments:
MLA recommends that to be qualified as a bona fide request, the request must be signed by the parties and verified by a local, state or federal government agency.

Enhancing Access to Advanced Services for Schools, Libraries, and Health Care Providers:
The FCC seeks to identify those advanced telecommunications and information services that carriers should make available to all eligible health care providers, libraries and school classrooms to the extent technically feasible and economically reasonable. The FCC asks commenters to identify such services and to identify the features and functionalities required to give eligible health care providers, libraries and school classrooms access to those services. They also ask commenters to suggest competitively neutral rules that we could adopt "to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries." Specifically, they ask whether the "advanced telecommunications and information services" addressed in Section 254(h)(2) should be a broader, narrower, or identical group to those supported under Section 254(h)(1). Further, the FCC requests suggestions as to any additional measures, other than discounts and financial support, that would promote deployment of advanced services to school classrooms, libraries and health care providers.

Comments:
MLA recommends that technical usage information and examples of services that are being provided successfully should be published on the FCC web site. This should also show the rate discount comparisons for all schools, libraries and healthcare institutions. Monitoring reports of overall cost, services and availability should also be published. Specifically we reference the earlier section of this document detailing the type of telecommunications services required by libraries and schools.

Conclusion:
MLA commends the FCC's efforts to redefine and develop a universal service support mechanism that will lead the nation into this new competitive era under the Telecommunications Reform Act of 1996. MLA's comments have been provided throughout the body of these comments and cover too many diverse areas to be reiterated here. Concisely, MLA would recommend adoption of a new universal service mechanism that embodies the principles covered in the body of these comments. MLA would further propose that any mechanism be adopted on a transitional basis, allow for change over time, and allow for more active public comment than the current short timeline allows.

Respectfully submitted,

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ATTACHMENT I

TECHNOLOGY PATH--NETWORK NEEDS

SERVICE OPTIONS	NETWORK NEEDS LIBRARY	NETWORK NEEDS REMOTE USER
Dial-up to Internet for basic information need	56 kbps preferred—modem pool	Voice line ok 9600 modem preferred--Communications software as under In House
Online Public Access Catalog—available locally through the vendored system	- As Above	- As Above -
Local text files on local issues created and made available locally and on the Internet gopher system could be used (see footnote A)	- As Above - or LAN, ethernet, token ring Integrated services digital network (ISDN) services useful (64-128 kbps) $25 - $40/month	- As Above - but 14.4 kbps modem preferred Also TCP/IP access using SLIP/PPP shareware for Internet connections
e-mail available locally for reference service to community Internet access to enhance reference support	- As Above -	-As Above -
Above reference service expanded further to allow for access to text files, images, and compound documents via World Wide Web clients such as Mosaic	More than above- T1 line preferred (1.44 Mbps leased service)	- As Above -
Local library materials scanned to create networked files including illustrations, graphics, etc.		
Full-fledged community information system implemented which allows for sound, full motion video, presentation of images, text manipulation (see footnote B)	T1 Plus (1.44 Mbps leased service) In the future will need to consider more than 1.5m bps including very high speed broadband services and video support like Asynchronous Transfer Mode (ATM)	128 kbps or faster (ISDN or above)

TECHNOLOGY PATH--HARDWARE NEEDS

SERVICE OPTIONS	HARDWARE NEEDS		HARDWARE NEEDS
	IN HOUSE USER	REMOTE USER	LIBRARY AS PROVIDER
Dial-up to Internet for basic information need	Minimal Configuration Required Terminal Emulation software (i.e. Procomm Plus, Versa Term)		- NA -
Online Public Access Catalog—available locally through the vendored system	- As Above -		Vendored System Hardware
Local text files on local issues created and made available locally and on the Internet gopher system could be used (see footnote A)	- As Above -		"Server" must be utilized $5 - 15,000
e-mail available locally for reference service to community Internet access to enhance reference support	- As Above -	- As Above -	Server As Above Centrally managed e-mail accounts (by library or commercial service like America Online)
Above reference service expanded further to allow for access to text files, images, and compound documents via World Wide Web clients such as Mosaic	486 computer with 8 mb of RAM, big color monitor, 120 mg hard drive or MAC or UNIX equivalent	Same As In House	Server $25,000
Local library materials scanned to create networked files including illustrations, graphics, etc.			Add flatbed scanner plus workstation described for In house use
Full-fledged community information system implemented which allows for sound, full motion video, presentation of images, text manipulation (see footnote B)	- As Above - but Pentium/ Power MacAV preferred multi-media configuration needed)	486 computer with 8 mb of RAM 15" or larger color monitor, 120 mg hard drive or MAC equivalent but Pentium/Power Mac AV preferred	- As Above -

Footnote A Community information services using less advanced information technology could include information about campus or government agencies, council/regents member lists, minutes, agendas, and schedules of forthcoming meetings in text format. They might also be able to provide public policy discussions on community bulletin boards, as well as plain text versions of such excellent community resources as League of Women Voters issue guides.

Footnote B The ultimate service goal in this pathway is an image-rich community information system that could provide logos of agencies, images (photos of local buildings and other images, photographs of key staff, etc.); present directory information about "community" institutions (area school districts, colleges, cooperative extension, etc.); government: municipal county, and special district governments; employment and training agencies, community development, social services agencies.

It could include graphically attractive image rich "brochures" describing services, restaurants, etc. It might also include city or campus maps, a wide range of specialty maps including those which show zoning, construction, bus routes, etc. Multi-media capabilities will mean voice transmission attached to meeting minutes/reports and/or video of community meetings/presentations; also voice and/or video of historical events.